

ABSTRACT

A method, system and egress switching node for maintaining a network connection in an optical network reduces the number of spans needed for reestablishing a network connection. The invention learns which channels are used by the network connection and propagates such channel assignment data to the switching nodes for storage therein. When a span failure occurs, a notification is sent to the switching nodes identifying which span has failed. The switch nodes use the notification and channel assignment data to perform protection switching such that the rerouted network connection selects the channel that was used by the network connection on the failed span. Likewise, the egress switching node uses the selected channel to drop the network connection from the protecting fibers. This enables a network connection to travel a shorter distance after a protection switch.